

COC REV 3/99

C.O( # 171

11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

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PAGE

# **CHAIN OF CUSTODY REPORT**

Work Order #: M10 7030 Bristol INVOICE TO: BASTO CLIENT: TURNAROUND REQUEST in Business Days\* Organic & Inorganic Analyses REPORT TO: Anne trawaweter 3 2 ADDRESS: Amchitha Island, Ak STD. Petroleum Hydrocarbon Analyses 4 3 2 1 1 <1 PHONE: 907 770-0974 FAX: 7700975 P.O. NUMBER: 21090 PROJECT NAME: Amchit has REQUESTED ANALYSES STD. Please Specify OTHER PROJECT NUMBER: 21090 \*Turnaround Requests less than standard may incur Rush Charges. SAMPLED BY: (Am / NTV BTEX/21 CLIENT SAMPLE SAMPLING MATRIX # OF NCA WO IDENTIFICATION DATE/TIME (W, S, O) CONT. **COMMENTS** ID 1.01AMF13045L 7/14/91 1000 2.01Am F13 05SL 7/14/01 1005 3.0 1Am F13 0 65 L 1010 4.01Am F 1307SL 1015 X 5.01 AM F1308SL 7/14/01 X 1020 6.0/ANF1309SL 7/14/01 1022 10. 12. 13. 14. RECEIVED BY: RELINQUISHED BY: DATE: 7/4/01 DATE: 7 FIRM: DA PRINT NAME: TIME: PRINT NAME: RELINQUISHED BY: DATE: DATE: RECEIVED BY: TIME: PRINT NAME: TIME: PRINT NAME: FIRM: ADDITIONAL REMARKS: TEMP: ALT F-13 Non Reculate



425,420,9200 fax 425,420,9210

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7 December, 2001

Anne Kranawetter Bristol Environmental & Engineering 2000 W International Airport C#1 Anchorage, AK 99502-1116

RE: Amchitka

Enclosed are the results of analyses for samples received by the laboratory on 07/14/01 16:25. If you have any questions concerning this report, please feel free to contact me.

This report was recreated from a previously issued final report in order to provide an electronic copy. The final report used for these electronic copies may have been previously issued as an amended report due to client requested changes to sample names, etc. No data has changed since submission of the previously issued final, or amended, report.

Sincerely,

Stephen Wilson

**Environmental Group Leader** 

1112

Work Orders included in this report:

M107030



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Bristol Environmental & Engineering Project: Amchitka 2000 W International Airport C#1 Project Number: 21090

Reported:

07/17/01 12:47

Anchorage, AK 99502-1116 Project Manager: Anne Kranawetter

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
01AMF1304SL	M107030-01	Soil	07/14/01 10:00	07/14/01 16:25
01AMF1305SL	M107030-02	Soil	07/14/01 10:05	07/14/01 16:25
01AMF1306SL	M107030-03	Soil	07/14/01 10:10	07/14/01 16:25
01AMF1307SL	M107030-04	Soil	07/14/01 10:15	07/14/01 16:25
01AMF1308SL	M107030-05	Soil	07/14/01 10:20	07/14/01 16:25
01AMF1309SL	M107030-06	Soil	07/14/01 10:22	07/14/01 16:25

COC #171

North Creek Analytical - Mobile Lab



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Bristol Environmental & Engineering Project: Amchitka
2000 W International Airport C#1 Project Number: 21090 Reported:

Anchorage, AK 99502-1116 Project Manager: Anne Kranawetter 07/17/01 12:47

# Diesel Hydrocarbons (C10-C25) per AK102 North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMF1304SL (M107030-01) Soil					Sampled: 07	//14/01 Rece	eived: 07/14/0	01	
Diesel Range Organics	ND	150	mg/kg dry	1	AK 102	07/15/01	07/15/01	0107056	
Surr: 1-Chlorooctadecane	72.8 %	50-150							
Surr: Triacontane	96.0 %	50-150							
01AMF1305SL (M107030-02) Soil					Sampled: 07	7/14/01 Rece	eived: 07/14/	01	
Diesel Range Organics	ND	150	mg/kg dry	1	AK 102	07/15/01	07/15/01	0107056	
Surr: 1-Chlorooctadecane	91.3 %	50-150							
Surr: Triacontane	93.3 %	50-150							
01AMF1306SL (M107030-03) Soil					Sampled: 07	7/14/01 Rece	eived: 07/14/	01	
<b>Diesel Range Organics</b>	3390	150	mg/kg dry	1	AK 102	07/15/01	07/15/01	0107056	D-16
Surr: 1-Chlorooctadecane	68.6 %	50-150							
Surr: Triacontane	83.4 %	50-150							
01AMF1307SL (M107030-04) Soil					Sampled: 07	7/14/01 Rece	eived: 07/14/	01	
<b>Diesel Range Organics</b>	2590	150	mg/kg dry	1	AK 102	07/15/01	07/15/01	0107056	
Surr: 1-Chlorooctadecane	101 %	50-150							
Surr: Triacontane	96.9 %	50-150							
01AMF1308SL (M107030-05) Soil					Sampled: 07	7/14/01 Rece	eived: 07/14/	01	
<b>Diesel Range Organics</b>	7830	150	mg/kg dry	1	AK 102	07/15/01	07/15/01	0107056	
Surr: 1-Chlorooctadecane	62.0 %	50-150							
Surr: Triacontane	97.8 %	50-150							

North Creek Analytical - Mobile Lab



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Bristol Environmental & Engineering Project: Amchitka 2000 W International Airport C#1 Project Number: 21090

Anchorage, AK 99502-1116 Project Manager: Anne Kranawetter 07/17/01 12:47

## BTEX,MTBE and Naphthalene per EPA Method 8021B North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Dilution	n Method	Prepared	Analyzed	Batch	Notes
Allaryte	Result	Lillit	Ullits	Dilution	Method	rrepareu	Anaryzeu	Daten	Notes
01AMF1304SL (M107030-01) Soil					Sampled: 07	/14/01 Rece	eived: 07/14/	01	
Benzene	ND	0.0459	mg/kg dry	50	!1B BTEX/M	TI 07/16/01	07/16/01	0107064	
Toluene	ND	0.184	"	"	"	"	"	"	
Ethylbenzene	ND	0.184	"	"	"	"	"	"	
Xylenes (total)	ND	0.367	"	"	"	"	"	"	
Naphthalene	ND	1.84	"	"	"	"	"	"	
Surr: 4-BFB	85.6 %	50-150							
01AMF1305SL (M107030-02) Soil			Sampled: 07/14/01 Received: 07/14/01						
Benzene	ND	0.0502	mg/kg dry	50	!1B BTEX/M	TI 07/16/01	07/16/01	0107064	
Toluene	ND	0.201	"	"	"	"	"	"	
Ethylbenzene	ND	0.201	"	"	"	"	"	"	
Xylenes (total)	ND	0.401	"	"	"	"	"	"	
Naphthalene	ND	2.01	"	"	"	"	"	"	
Surr: 4-BFB	88.2 %	50-150							
01AMF1306SL (M107030-03) Soil					Sampled: 07	/14/01 Rece	eived: 07/14/	01	R-05
Benzene	ND	0.0796	mg/kg dry	50	21B BTEX/M	TI 07/16/01	07/16/01	0107064	
Toluene	ND	0.319	"	"	"	"	"	"	
Ethylbenzene	ND	0.319	"	"	"	"	"	"	
Xylenes (total)	ND	0.637	"	"	"	"	"	"	
Naphthalene	ND	3.19	"	"	"	"	"	"	
Surr: 4-BFB	88.9 %	50-150							
01AMF1307SL (M107030-04) Soil					Sampled: 07	/14/01 Rece	eived: 07/14/	01	R-05
Benzene	ND	0.0920	mg/kg dry	50	!1B BTEX/M		07/16/01	0107064	
Toluene	ND	0.368	"	"	"	"	"	"	
Ethylbenzene	ND	0.368	"	"	"	"	"	"	
Xylenes (total)	1.69	0.736	"	"	"	"	"	"	
Naphthalene	8.20	3.68	"	"	"	"	"	"	
Surr: 4-BFB	124 %	50-150							

North Creek Analytical - Mobile Lab



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Bristol Environmental & Engineering Project: Amchitka 2000 W International Airport C#1 Project Number: 21090

Reported:

Anchorage, AK 99502-1116 Project Manager: Anne Kranawetter

07/17/01 12:47

## BTEX,MTBE and Naphthalene per EPA Method 8021B North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMF1308SL (M107030-05) Soil					Sampled: 07/	14/01 Rece	eived: 07/14/	01	R-05
Benzene	ND	0.101	mg/kg dry	50	!1B BTEX/MT	1 07/16/01	07/16/01	0107064	
Toluene	ND	0.403	"	"	"	"	"	"	
Ethylbenzene	ND	0.403	"	"	"	"	"	"	
Xylenes (total)	ND	0.807	"	"	"	"	"	"	
Naphthalene	6.92	4.03	"	"	"	"	"	"	
Surr: 4-BFB	103 %	50-150							
01AMF1309SL (M107030-06) Soil					Sampled: 07/	14/01 Rece	eived: 07/14/	01	
Benzene	ND	0.117	mg/kg dry	50	!1B BTEX/MT	1 07/16/01	07/16/01	0107064	
Toluene	ND	0.467	"	"	"	"	"	"	
Ethylbenzene	ND	0.467	"	"	"	"	"	"	
Xylenes (total)	ND	0.933	"	"	"	"	"	"	
Naphthalene	ND	4.67	"	"	"	"	"	"	
Surr: 4-BFB	92.3 %	50-150							

North Creek Analytical - Mobile Lab



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Bristol Environmental & Engineering Project: Amchitka 2000 W International Airport C#1 Project Number: 21090

Reported:

07/17/01 12:47

Anchorage, AK 99502-1116 Project Manager: Anne Kranawetter

# Physical Parameters per APHA/ASTM/EPA Methods North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit Units	Dilution	Method Prepar	ed Analyzed	Batch Notes
01AMF1304SL (M107030-01) Soil				Sampled: 07/14/01 F	Received: 07/14/0	1
% Solids	89.3	0.0100% by Weight	1	Gravimetric 07/15/0	07/16/01	0107063
01AMF1305SL (M107030-02) Soil				Sampled: 07/14/01 F	Received: 07/14/0	1
% Solids	89.6	0.0100 % by Weight	1	Gravimetric 07/15/0	07/16/01	0107063
01AMF1306SL (M107030-03) Soil				Sampled: 07/14/01 F	Received: 07/14/0	1
% Solids	86.8	0.0100 % by Weight	1	Gravimetric 07/15/0	07/16/01	0107063
01AMF1307SL (M107030-04) Soil				Sampled: 07/14/01 F	Received: 07/14/0	1
% Solids	89.1	0.0100 % by Weight	1	Gravimetric 07/15/0	07/16/01	0107063
01AMF1308SL (M107030-05) Soil				Sampled: 07/14/01 F	Received: 07/14/0	1
% Solids	82.4	0.0100 % by Weight	. 1	Gravimetric 07/15/0	07/16/01	0107063
01AMF1309SL (M107030-06) Soil				Sampled: 07/14/01 F	Received: 07/14/0	1
% Solids	100	0.0100 % by Weight	1	Gravimetric 07/15/0	07/16/01	0107063

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%REC

50-150

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Source

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95.3

Bristol Environmental & Engineering 2000 W International Airport C#1

Project: Amchitka
Project Number: 21090

Reported:

Anchorage, AK 99502-1116

Surr: Triacontane

Project Manager: Anne Kranawetter

07/17/01 12:47

**RPD** 

#### Diesel Hydrocarbons (C10-C25) per AK102 - Quality Control

#### North Creek Analytical - Mobile Lab

Analyte	Result	Limit Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 0107056 - 3545 ASE									
Blank (0107056-BLK1)			Prepare	ed & Anal	yzed: 07/1	5/01			
Diesel Range Organics	ND	150 mg/kg we	t						
Surr: 1-Chlorooctadecane	22.1	"	23.7		93.2	50-150			

23.5

LCS (0107056-BS1)	Prepared &	5/01				
Diesel Range Organics	1120	150 mg/kg wet	1250	89.6	75-125	
Comment Chilenese et al. comme	25.6	,,	22.7	100	50 150	

22.4

Reporting

Surr: 1-Chlorooctadecane	25.6	"	23.7	108	50-150
Surr: Triacontane	23.8	"	23.5	101	50-150

LCS Dup (0107056-BSD1)	Prepared & Analyzed: 07/15/01							
Diesel Range Organics	1340	150 mg/kg wet	1250	107	75-125	17.9	20	
Surr: 1-Chlorooctadecane	17.5	"	23.7	73.8	50-150			
Surr: Triacontane	21.3	"	23.5	90.6	50-150			

Matrix Spike (0107056-MS1)	Source	e: M107030-01	Prepared	d & Analy	zed: 07/1	5/01
Diesel Range Organics	1530	150 mg/kg dry	1330	ND	114	60-140
Surr: 1-Chlorooctadecane	16.9	"	25.2		67.1	50-150
Surr: Triacontane	24.0	"	25.0		96.0	50-150

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Bristol Environmental & Engineering 2000 W International Airport C#1

Project: Amchitka Project Number: 21090

Reported:

Anchorage, AK 99502-1116

Project Manager: Anne Kranawetter

07/17/01 12:47

#### BTEX,MTBE and Naphthalene per EPA Method 8021B - Quality Control

### North Creek Analytical - Mobile Lab

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch	010706	4 - MeOH	Extraction
-------	--------	----------	------------

Blank (0107064-BLK1)				Prepared & Analyzed: 07/16/01		
Benzene	ND	0.0250 n	ng/kg wet		-	
Toluene	ND	0.100	"			
Ethylbenzene	ND	0.100	"			
Xylenes (total)	ND	0.200	"			
Naphthalene	ND	1.00	"			
Surr: 4-BFB	2.61		"	2.50	104	50-150
LCS (0107064-BS1)	(1)			Prepared & Analyzed: 07/16/01		
Benzene	2.39	0.0250 n	ng/kg wet	2.50	95.6	69-138
Toluene	2.53	0.100	"	2.50	101	53-151
Ethylbenzene	2.52	0.100	"	2.50	101	61-141
Xylenes (total)	7.73	0.200	"	7.50	103	62-141
Naphthalene	3.09	1.00	"	2.50	124	65-135

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Anchorage, AK 99502-1116 Project Manager: Anne Kranawetter 07/17/01 12:47

#### **Notes and Definitions**

D-16 Detected hydrocarbons in the diesel do not have a distinct diesel pattern and may be due to heavily weathered diesel.

R-05 Reporting limits raised due to dilution necessary for analysis.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.

wet Sample results reported on a wet weight basis (as received)

RPD Relative Percent Difference

North Creek Analytical - Mobile Lab

### **Items for Project Manager Review**

LabNumber	Analysis	Analyte	Exception	
			Report recreated from:	
			\\sisters\elmnt\Report\M107030 FINAL 07 17 01	
			1247.mdb	
			Default Report (not modified)	
M107030-03	8021B BTEX/MTBE/N		R-05	
M107030-03	AK102 (DRO)	Diesel Range Organics	D-16	
M107030-04	8021B BTEX/MTBE/N		R-05	
M107030-05	8021B BTEX/MTBE/N		R-05	